What is claimed is:

1. A method for processing image signals, comprising the steps of:

reading an image recorded on a recording medium so as to generate image signals representing said image;

applying a multi-resolution conversion processing of at least level 1, which is capable of reducing an image size of said image signals, to said image signals read in said reading step, so as to generate first-converted image signals from said image signals; and

applying a Dyadic Wavelet transform of at least level 1 to low frequency band component signals included in said first-converted image signals generated in said applying step of said multi-resolution conversion processing, so as to generate second-converted image signals from said first-converted image signals;

wherein an image size of said first-converted image signals is smaller than that of said image signals.

2. The method of claim 1, further comprising the step of:

applying a first image processing to said second-converted image signals generated in said applying step of said Dyadic Wavelet transform.

3. The method of claim 1, further comprising the step of:

applying a first image processing to high frequency band component signals included in said second-converted image signals generated in said applying step of said Dyadic Wavelet transform.

4. The method of claim 3,

wherein said first image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed in said applying step of said first image processing.

5. The method of claim 2, further comprising the step of:

applying a second image processing to said first-converted image signals generated in said applying step of said multi-resolution conversion processing.

6. The method of claim 2, further comprising the step of:

applying a second image processing to high frequency band component signals included in said first-converted image signals generated in said applying step of said multi-resolution conversion processing.

7. The method of claim 6,

wherein said second image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed in said applying step of said second image processing.

8. The method of claim 1,

wherein said multi-resolution conversion is an orthogonal wavelet conversion or a bi-orthogonal wavelet conversion.

9. The method of claim 1, further comprising the steps of:

determining a changeover level from said multi-resolution conversion processing to said Dyadic Wavelet

transform, based on a resolution of said image signals read in said reading step;

wherein said multi-resolution conversion processing is applied to said image signals according to said changeover level determined in said determining step, and said Dyadic Wavelet transform is applied to said low frequency band component signals according to said changeover level determined in said determining step.

10. An apparatus for processing image signals, comprising:

a reading section to read an image recorded on a recording medium so as to generate image signals representing said image;

a first converting section to apply a multi-resolution conversion processing of at least level 1, which is capable of reducing an image size of said image signals, to said image signals read by said reading section, so as to generate first-converted image signals from said image signals; and

a second converting section to apply a Dyadic Wavelet transform of at least level 1 to low frequency band component signals included in said first-converted image signals generated by said first converting section, so as to generate

second-converted image signals from said first-converted image signals;

wherein an image size of said first-converted image signals is smaller than that of said image signals.

11. The apparatus of claim 10, further comprising:

a first image-processing section to apply a first image processing to said second-converted image signals generated by said second converting section.

12. The apparatus of claim 10, further comprising:

a first image-processing section to apply a first image processing to high frequency band component signals included in said second-converted image signals generated by said second converting section.

13. The apparatus of claim 12,

wherein said first image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed.

14. The apparatus of claim 11, further comprising:

a second image-processing section to apply a second image processing to said first-converted image signals generated by said first converting section.

15. The apparatus of claim 11, further comprising:

a second image-processing section to apply a second image processing to high frequency band component signals included in said first-converted image signals generated by said first converting section.

16. The apparatus of claim 15,

wherein said second image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed.

17. The apparatus of claim 10,

wherein said multi-resolution conversion is an orthogonal wavelet conversion or a bi-orthogonal wavelet conversion.

18. The apparatus of claim 10, further comprising:

a determining section to determine a changeover level from said multi-resolution conversion processing to said Dyadic Wavelet transform, based on a resolution of said image signals read by said reading section;

wherein said first converting section applies said multi-resolution conversion processing to said image signals according to said changeover level determined by said determining section, and said second converting section applies said Dyadic Wavelet transform to said low frequency band component signals according to said changeover level determined by said determining section.

19. A computer program for executing operations for processing image signals, comprising the functional steps of:

reading an image recorded on a recording medium so as to generate image signals representing said image;

applying a multi-resolution conversion processing of at least level 1, which is capable of reducing an image size of said image signals, to said image signals read in said reading step, so as to generate first-converted image signals from said image signals; and

applying a Dyadic Wavelet transform of at least level 1 to low frequency band component signals included in said first-converted image signals generated in said applying step of said multi-resolution conversion processing, so as to generate second-converted image signals from said first-converted image signals;

wherein an image size of said first-converted image signals is smaller than that of said image signals.

20. The computer program of claim 19, further comprising the functional step of:

applying a first image processing to said second-converted image signals generated in said applying step of said Dyadic Wavelet transform.

21. The computer program of claim 19, further comprising the step of:

applying a first image processing to high frequency band component signals included in said second-converted image signals generated in said applying step of said Dyadic Wavelet transform.

22. The computer program of claim 21,

wherein said first image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed in said applying step of said first image processing.

23. The computer program of claim 20, further comprising the functional step of:

applying a second image processing to said first-converted image signals generated in said applying step of said multi-resolution conversion processing.

24. The computer program of claim 20, further comprising the functional step of:

applying a second image processing to high frequency band component signals included in said first-converted image signals generated in said applying step of said multi-resolution conversion processing.

25. The computer program of claim 24,

wherein said second image processing includes such a processing that a signal intensity of a specific pixel, which

fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed in said applying step of said second image processing.

26. The computer program of claim 19,

wherein said multi-resolution conversion is an orthogonal wavelet conversion or a bi-orthogonal wavelet conversion.

27. The computer program of claim 19, further comprising the functional steps of:

determining a changeover level from said multi-resolution conversion processing to said Dyadic Wavelet transform, based on a resolution of said image signals read in said reading step;

wherein said multi-resolution conversion processing is applied to said image signals according to said changeover level determined in said determining step, and said Dyadic Wavelet transform is applied to said low frequency band component signals according to said changeover level determined in said determining step.

28. An apparatus for recording an output image onto an outputting medium, comprising:

a reading section to read an image formed on a recording medium so as to generate image signals representing said image;

a processing section to process said image signals so as to generate an output image signals representing said output image; and

a recording section to record said output image onto said outputting medium, based on said output image signals generated by said processing section;

wherein said processing section includes:

a first converting section to apply a multi-resolution conversion processing of at least level 1, which is capable of reducing an image size of said image signals, to said image signals read by said reading section, so as to generate first-converted image signals from said image signals; and

a second converting section to apply a Dyadic Wavelet transform of at least level 1 to low frequency band component signals included in said first-converted image signals generated by said first converting section, so as to

generate second-converted image signals from said first-converted image signals;

wherein an image size of said first-converted image signals is smaller than that of said image signals.

29. The apparatus of claim 28,

wherein said processing section further includes:

a first image-processing section to apply a first image processing to said second-converted image signals generated by said second converting section.

30. The apparatus of claim 28,

wherein said processing section further includes:

a first image-processing section to apply a first image processing to high frequency band component signals included in said second-converted image signals generated by said second converting section.

31. The apparatus of claim 30,

wherein said first image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance

among pixels represented by said high frequency band component signals, is suppressed.

32. The apparatus of claim 29,

wherein said processing section further includes:

a second image-processing section to apply a second image processing to said first-converted image signals generated by said first converting section.

33. The apparatus of claim 29,

wherein said processing section further includes:

a second image-processing section to apply a second image processing to high frequency band component signals included in said first-converted image signals generated by said first converting section.

34. The apparatus of claim 33,

wherein said second image processing includes such a processing that a signal intensity of a specific pixel, which fulfils a predetermined condition established in advance among pixels represented by said high frequency band component signals, is suppressed.

35. The apparatus of claim 28,

wherein said multi-resolution conversion is an orthogonal wavelet conversion or a bi-orthogonal wavelet conversion.

36. The apparatus of claim 28,

wherein said processing section further includes:

a determining section to determine a changeover level from said multi-resolution conversion processing to said Dyadic Wavelet transform, based on a resolution of said image signals read by said reading section;

wherein said first converting section applies said multi-resolution conversion processing to said image signals according to said changeover level determined by said determining section, and said second converting section applies said Dyadic Wavelet transform to said low frequency band component signals according to said changeover level determined by said determining section.